

Title (en)
METHOD FOR ELIMINATING ADJACENT CHANNEL INTERFERENCE, MODEM AND SYSTEM

Title (de)
VERFAHREN ZUR BESEITIGUNG VON NACHBARKANALSTÖRUNGEN, MODEM UND SYSTEM DAFÜR

Title (fr)
PROCÉDÉ POUR ÉLIMINER UN BROUILLAGE DE CANAL ADJACENT, ET MODEM ET SYSTÈME CORRESPONDANTS

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Abstract (en)
A method for canceling adjacent channel interference includes: receiving signal of a first channel, where an interference signal of a second channel remains in the signal of the first channel, and the second channel and the first channel are adjacent channels; receiving a cancellation signal provided by the second channel for canceling the interference signal; filtering the received cancellation signal so that phase characteristics and amplitude variation characteristics of the filtered cancellation signal are the same as phase characteristics and amplitude variation characteristics of the interference signal of the second channel that remains in the signal of the first channel; adjusting a frequency of the filtered cancellation signal, where the adjusted frequency of the cancellation signal is the same as a frequency of the interference signal; multiplying the cancellation signal with the adjusted frequency by a gain factor to obtain a signal to be cancelled; and subtracting the signal to be cancelled from the signal of the first channel, and canceling the interference signal to obtain a signal to be decoded. According to the technical solutions provided in the embodiments of the present invention, interference signals of adjacent channels are cancelled, and the signal to noise ratio is improved.

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